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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,619	01/28/2004	Sam Liu	NEW001	3743

7590 12/08/2005

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Suite 315  
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San Jose, CA 95112

EXAMINER
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PENG, CHARLIE YU

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/766,619	LIU ET AL.	
	Examiner	Art Unit	
	Charlie Peng	2883	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: numerous "IEEE" throughout the disclosure should be replaced with "IEEE".

Appropriate correction is required.

### ***Election/Restrictions***

Applicant's election without traverse of 1-4 in the reply filed on 15 November 2005 is acknowledged. Claims 5-32 have been canceled by the applicant.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,369,555 to Rincon-Mora. Rincon-Mora teaches a hysteretic dc-dc converter containing a feedback circuit for increasing the natural frequency of the converter without decreasing the hysteretic window associated therewith comprising: a comparator 104 with a first input receiving an input 117 and a second input coupled to a reference voltage  $V_{ref}$  and a feedback circuit 106. (See at least Fig. 5 and its descriptions)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rincon-Mora further in view of U.S. Patent 6,226,045 to Vidovich. Rincon-Mora teaches the control circuit having the comparator with the reference voltage source and the feedback network except for a high speed voltage comparator. Vidovich teaches that a high speed voltage comparator used in a circuit. (See Fig. 3 and description) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a high speed voltage comparator for the motivation of eliminating the amplitude variations by setting the output voltage to the reference level voltage.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rincon-Mora further in view of U.S. PGPub 2001/0036227 to Matsuo et al. Rincon-Mora teaches the control circuit having the comparator with the reference voltage source and the feedback network except for an input signal comprising an output signal of an IEEE 1394 compliant physical layer output driver circuit. The IEEE 1394 (Firewire) is a very well known communication technology in the art. Matsuo teaches a communication control circuit having a physical layer (PHY) circuit in conformity with IEEE 1394, wherein a cable drive circuit for driving an IEEE 1394 cable receive a signal from the cable, the cable drive circuit has first terminals for communicating with the cable, and a arbitration comparator for detecting (as an input) a state of the first terminals. (See at

least Fig. 14 and description and [0106] [0107] in Summary) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a comparator as described by Rincon-Mora as part of the control circuit having a PHY circuit that is IEEE 1394 compliant. The motivation would be that it allows performing an operation test of the communication control circuit easily on a low-speed LSI at a high speed equivalent to normal operation.


Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rincon-Mora further in view of U.S. PGPub 2004/0151198 to Brown et al. Rincon-Mora teaches the control circuit having the comparator with the reference voltage source and the feedback network except for a glass fiber optical physical medium dependent sub-layer. Physical medium dependent sub-layers or PMDs are well known specifications in 10 Gigabit Ethernet transmissions and were defined by the IEEE 802.3ae task force in 2002 for single or multi-mode optical fiber operation. Brown teaches a PHY layer control circuit 410 that links a 1394b link layer 112 to a PMD sub-layer 430. (See at least Fig. 4 and description) The motivation would be to match to a different bit rate that corresponds to a second communications standard and then transmit a data stream over a physical transmission medium that uses the second communications standard. Further, the use of glass fiber optical material is not considered patentable since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of engineering choice. In re Leshin, 125 USPQ 416. The motivation would be that high purity glass fibers have lower transmission loss (than polymer fibers).

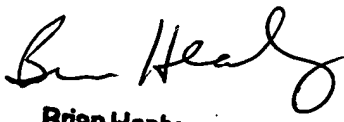
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 9 am - 6 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Charlie Peng  
December 5, 2005

  
Brian Healy  
Primary Examiner